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MONTANA DEPARTMENT OF FISH AND GAME
Ecological Services Division

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February 14, 1978

Preliminary Environmental Review
for
The Snake Pit, A Tourist Attraction

INTRODUCTION AND BACKGROUND

On October 13, 1977 the Montana Department of Fish and Game issued a preliminary environmental review for the Snake Pit, a tourist attraction. That environmental review concluded "As with so many individual actions, each viewed alone does not constitute a significant effect on the quality of the human environment. Granting this permit is no different; it will contribute to the continuing trend already in evidence in the area. Its denial would not alter that trend, even if denial were possible on environmental grounds. Neither the zoo and menagerie law nor the Montana Environmental Policy Act provides the option to deny. Preparation of an environmental impact statement would serve no purpose not attained through this preliminary environmental review."

Following the issuance of that preliminary environmental review and conclusion, the Montana Fish and Game Commission decided that if 25 or more individuals would express an interest in having a public hearing the commission would hold a public hearing and accept public response to the PER and public testimony regarding the Snake Pit in general.

In the time prescribed by the commission for the expression of public interest, in excess of 25 individuals did express an interest in holding a public hearing. As a result of that expression of interest, a public hearing was held in Missoula at the Montana Power Company building during the evening of January 9, 1978. Following that hearing a transcript was prepared and additional testimony was submitted to the Fish and Game Department, both in writing and orally, from interested parties.

Since the information and analysis now being offered is a part of and in addition to FG-N-85, the October 13, 1977 preliminary environmental review, those subjects addressed in that particular document will not be repeated.

The items to be given consideration are: (1) air quality, (2) wastewater treatment, (3) floodplain occupancy, (4) real estate values, (5) compliance with the signing ordinance, and (6) the option to deny the permit on the grounds of the Montana Environmental Policy Act.

(1) Air quality. Mr. Richard Sheridan of Missoula presented a detailed discussion of the air quality standards and concluded, "... that a violation in the federal, state and Missoula County Suspended Particulate Air Quality Law exists and will be aggravated by increased traffic resulting from the tourist attraction known as the Snake Pit." His analysis and concerns were presented in writing and are included as Appendix A to this addendum.

In order to analyze Mr. Sheridan's submission, assistance was requested from the Air Quality Bureau. Air Quality personnel confirmed that the first three pages of Mr. Sheridan's report did accurately reflect the air quality standards and criteria. Air Quality Bureau personnel also stated that it would be unlikely for any air quality violation to occur at the existing Rock Creek Lodge now being converted to the Snake Pit. The individual reviewing the document acknowledged that at the present time there is no monitoring equipment in place along the Rock Creek road and even should equipment and monitoring funds be available, monitoring of this particular road would not rate a high priority among the problems presently confronting the Montana Air Quality Bureau on a statewide basis.

It was further pointed out that if air quality were to be monitored on the Rock Creek road, it would most likely have to be instituted by Missoula County, and that the health authorities in that county would have to establish this project as a priority and install sampling equipment.

Air Quality Bureau personnel did agree with Mr. Sheridan's basic conclusion that on certain given days the air quality standards are violated along the Rock Creek road as they are also violated on any gravel road in Montana receiving reasonably heavy use. Logically, as Mr. Sheridan points out, this situation would be aggravated by any increased traffic diverted up the Rock Creek road as a result of the Snake Pit tourist attraction. No attempt was made to estimate the quantity of traffic that would be diverted up the Rock Creek road as a result of the Snake Pit tourist attraction.

(2) Data relative to the wastewater treatment system were submitted and are included as Appendix B to this addendum. A conclusion is reached in that document which states, "...in all probability there will be pollutants entering either the Clark Fork or Rock Creek which are attributable to the raised drainage system. The magnitude of this sewage will be small. Further, the County Sanitarian is reluctant to issue permits for any further raised field drainage systems in the area of the Rock Creek Lodge. Any new sources of sewage require a new permit. That is, the present sewage system is limited to serve the facilities at the Rock Creek Lodge as of the summer of 1977. The menageries, therefore, constitute a new source of sewage."

In the case of water quality questions, the septic system must be approved by the County Sanitarian and unless either the system installed

is denied a permit by the county, or can be shown to be in violation of the State Water Quality Standards, the Department of Fish and Game can take no action or make no assumptions other than the fact that the existing laws are being complied with.

(3) The question of floodplain occupancy was raised during this review process. The floodplain of the Clark Fork River in this vicinity has been studied and the 100-year floodplain identified. Maps identifying the extent of the 100-year floodplain show the interstate highway as a barrier to flood waters encroaching on the Rock Creek Lodge. Therefore, even should floodplain restrictions be imposed on the 100-year flood area, the proposed Snake Pit would lie outside of the land identified as being part of that floodplain.

(4) Testimony was presented in telephone conversation from Paul Bruner of Eco Realty in Missoula. Mr. Bruner is an experienced individual and recognized authority in the area of land sales to "benevolent buyers." A benevolent buyer is an individual who would acquire property with the primary objective of preserving the natural qualities of a given tract of land as opposed to land speculators who might buy a property for such purposes as subdivisions. Mr. Bruner pointed out that there were three landowners within sight of the lodge now who, in his opinion, are protecting their property and resisting the economic attractions of subdividing and selling that property.

It was further Mr. Bruner's opinion that these individuals would become discouraged and put their properties on the market. At this point he feels, in his expert opinion, that a benevolent buyer would be impossible to find and that the only person to pay the price would be an individual interested in subdivision, thereby aggravating the problem of rural subdivision in the vicinity of Rock Creek and the Clark Fork River. While these opinions are to a degree speculative, the Department of Fish and Game has no reason to doubt Mr. Bruner's observations and does recognize him as an expert in his field.

(5) The public, in testimony, continues to express apprehensions over the enforcement of the signing along interstate highways. This control was outlined in the Outdoor Advertising Act of 1971 and amended in 1975. Provisions for enforcing this act were included as Appendix A to the original preliminary environmental review.

In further pursuit of this issue, inquiry was made to the Permit Division, Montana Department of Highways. As a result of this inquiry, it was learned that the Highway Department is currently investigating signs in the vicinity of the Rock Creek Lodge, Rock Creek and the Clark Fork River. Not all signs being investigated are associated with the lodge, but an investigation is underway. Plans have been made to take photographs and then to cite any alleged violators in that particular area. The Montana Department of Fish and Game has been promised copies of any correspondence drafted on that subject; however, to date none have been received. Here again, as in the case of water quality, the Montana Department of Fish and Game is assuming that agencies with regulatory authority are or will be enforcing present laws and regulations.

(6) During the public hearing it was suggested that the Department of Fish and Game has the option to deny zoo and menagerie permits on broader grounds of the Montana Environmental Policy Act. This option is not available to the department in this instance for several reasons. MEPA applies to "...major actions of state government significantly affecting the quality of the human environment..." and further directs that its policies are to be carried out "...to the fullest extent possible." The grant or denial of this permit is not a major action of the state.

The department has rules relating to implementation of MEPA. These rules provide, in ARM 12-2.2(10)-P2010(2) that: "A PER shall be prepared on all actions...or when the action is clearly a major state action..." There is excluded "...inspection of facilities..." The department has carried out the required inspections and the applicant has complied with applicable rules.

The department's MEPA rules indicate it will not perform an environmental impact statement where the department "exercises no discretion."

Department discretion in grant of a zoo or menagerie permit is limited to inspection of the facilities as provided by law and applicable rule. The inspection has been carried out, and the department has performed a preliminary environmental review. Action beyond this is not required by statute or applicable rule and is beyond the authority of the department.

CONCLUSION

It is apparent from the review resulting from this preliminary environmental review (FG-N-85), public testimony submitted at a public hearing and information submitted subsequent to that public hearing, that a degree of environmental degradation will occur from the establishment of the Snake Pit in what was formerly the Rock Creek Lodge. The degree of this degradation is not quantifiable at this time, nor is it of such magnitude that it would create a violation of any environmental quality law by its presence in the former Rock Creek Lodge. It is also apparent as a result of this review that questions of signing, air quality and water quality have clear and specific provisions for enforcement of established standards. The authority for enforcing those standards lies beyond the Department of Fish and Game, being vested in other state agencies.

It is also apparent that people who chose to utilize the opportunities provided for the expression of public opinion were overwhelmingly opposed to the establishment of the Snake Pit in the Rock Creek Lodge. The Fish and Game Department does not have the authority to deny the permit based on that expressed public opinion if the applicant meets the standards established in the zoo and menagerie act being enforced by the Department of Fish and Game.

As a result, the Fish and Game Department continues in its conclusion that the applicant has met the requirements of the zoo and menagerie act, that the department has in good faith attempted to comply with the provisions of the Montana Environmental Policy Act, and that a license to operate a zoo and menagerie should and will be issued to Mr. Tex Cordell on or after February 22, 1978.

Individuals contacted in the review of materials submitted in response to FG-N-85, A Preliminary Environmental Review for the Snake Pit, A Tourist Attraction, include Mr. John Bolstad, Air Quality Bureau, Montana Department of Health and Environmental Sciences; Joe Aldegarie, Missoula City/County Health Department; Bob Smith, Floodplain Management Section, Department of Natural Resources; Norm Dalry, Permit Division, Department of Highways; and F. Woodside Wright, Chief, General Services Bureau, Montana Department of Fish and Game.

Addendum Prepared By:

James A. Posewitz, Administrator
Ecological Services Division

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Montana Sierra Club
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c/o John Oberlitner
Route 1, Box 45
Polson, MT 59860

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Box 1037
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Rock Creek Homeowners Club
c/o Don Michnevich
Clinton, MT 59825

Missoula County Commissioners

Dr. Carl Tobias
School of Law
University of Montana
Missoula, MT 59801

Mr. Mike Lilly
School of Law
University of Montana
Missoula, MT 59801

APPENDIX A
INTRODUCTION

This report was prepared for the Commissioners of the County of Missoula and the State of Montana Fish and Game for the purpose of providing evidence of air quality violations. The site referred to is generally known as lower Rock Creek Road or as Highway 348. The area in question is that portion of Highway 348 that lies between Interstate 90 and the boundary line of Missoula County.

DETAILS OF VIOLATION

National Primary Standard. Definitions - define levels of air quality which the Administrator judges are necessary, with adequate margin of safety, to protect the public health. (Ref. EPA Regulations, paragraph 50.2).

National Secondary Standard. Definition - define levels of air quality which the Administrator judges necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. (EPA, paragraph 50.2).

Qualifiers:

- a) The promulgation of national primary and secondary standards are not considered in any manner to allow significant deterioration of existing air quality.
- b) Does not prohibit more stringent standards (EPA Regulations, paragraph 50.2).

It is apparent that the secondary standards are more stringent than the primary for the purpose of providing a wider margin of safety.

Suspended Particulate

Federal primary ambient air standard for particulate (EPA, paragraph 50.6):
75 $\mu\text{g}/\text{m}^3$ annual geometric mean; 260 $\mu\text{g}/\text{m}^3$ maximum 24 hour concentration not to be exceeded more than 1 day per year. The Missoula County Primary Standard

values for suspended particulate are intermediate with respect to the Federal Primary and Secondary Standards. The County Standards for particulate are: $75 \mu\text{g}/\text{m}^3$, annual geometric mean; $200 \mu\text{g}/\text{m}^3$ not to be exceeded more than 1 percent of the days per year (3.6 days) (Missoula County Air Pollution Control Program, X, 4040).

In contrast to the above Federal and Missoula County ambient standards the alert level requiring voluntary actions to avert an air quality emergency has been set at $375 \mu\text{g}/\text{m}^3$.

TABLE 1. A Comparison of Federal and Missoula County Ambient Air Regulations for Suspended Particulate.

	$\mu\text{g}/\text{m}^3$
Federal Secondary	150
County Primary	200
Federal Primary	260
County Alert	375
State Alert	375
Federal Alert	375

The long-term County quantification of suspended particulate has the dimensions - $75 \mu\text{g}/\text{m}^3$ computed as the annual geometric mean (G.M.Y. = antilog $1/n \log y$ or $\text{G.M.Y.} = \sqrt[n]{Y_1 Y_2 \cdots Y_n}$. Table 2 lists the Federal, State and County regulations and the occurrence of violations by year.

TABLE 2. Annual Geometric Means for Suspended Particulate - County Courthouse

	<u>$\mu\text{g}/\text{m}^3$</u>
Federal Secondary	60
County Primary	75
Federal Primary	75

*Indicates violation occurred.

The health effects resulting from airborne particulate are described by EPA publication (EPA 600/1-76-023 - entitled Scientific and Technical Data Base for Criteria and Hazardous Pollutants 1975 ERC/RTP Review - May 1976) in which the newest data available on health effects was published (Table 3).

TABLE 3. Best Judgment Threshold Estimates for Health Effects of Total Suspended Particulates Based on New Evidence

<u>Adverse Health Effect</u>	<u>Concentration</u>	<u>Time Base</u>
1. Aggravation of symptoms in adult panels	$120 \mu\text{g}/\text{m}^3$	24 hours
2. Acute irritation symptoms	$175 \mu\text{g}/\text{m}^3$	24 hours
3. Aggravation of asthma symptoms	$260 \mu\text{g}/\text{m}^3$	24 hours

Application of Air Quality Standards
to Highway 348:

To establish the existence of a violation, it is necessary to emplace for an extended period of time calibrated high volume particulate samplers on the site in question. To date, high volume sampler data is not available; therefore, this text will establish using other road systems of a similar type that have high volume sampler data and by expert testimony that Highway 348 is de facto in violation of Federal, State and Missoula County air quality standards...further, that no permit be issued to Snake Pit on the grounds that it will further ascerbate the alleged violation of suspended particulate standards by increasing traffic flow beyond the current use until an Environmental Impact Statement including high volume sampler data has been prepared.

My name is Richard P. Sheridan and I reside at RR5 Pattee Canyon, Missoula Montana 59801. I am employed at the Department of Botany as an Associate Professor.

It is my advised opinion based on experience in the field of air pollution and being well acquainted with the area of Rock Creek under question that a violation in the Federal, State and Missoula County suspended particulate air quality law ($200 \mu\text{g}/\text{m}^3$) exists and will be aggravated by increased traffic resulting from the tourist attraction known as Snake Pit.

R. SHERIDAN

1-20-78

R. Sheridan

APPENDIX B

Rock Creek Lodge

The geological situation in the vicinity of Rock Creek Lodge is one of a high water table with some water surfacing.

During the Summer of 1977, the existing sewer system serving the facilities including the lodge, restaurant and bar failed. Upon request, Sorenson and Company designed a raised drainage field type sewage system to serve the existing facility. The Missoula County Sanitation Department accepted the design as one adequate to serve the existing facility only.

Subsequently, the owner, Mr. Cordell, has made application for a zoo and menagerie permit to the State of Montana Fish and Game Department. It is our contention that the request for this permit implies an increased volume of visitors and therefore sanitation facilities which presently do not exist and which cannot be built without the acquisition of new properties for a new and larger volume raised drain field. The site, design and effect upon both ground water and surface water--including Rock Creek and Clark Fork are at present undetermined but potential hazards resulting from the increased sewage volume resulting from the granting of a menagerie and zoo permit.

SPECIFICS;

DESIGN: Raised drainage field

CAPACITY: To serve existing but not new facilities

ENGINEER: Sorenson & Co., Inc.
Hwy. 10 West
Missoula, MT 59801

CONSULTANT: Woody Germany

INCLUDED:

Lodge	Service Station	Motel
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DESIGN: 4430 gal. per day
flow

Cafe 92 seats
5 person turn on
at 6 gal. per person

2760 per day

Bar 12 seats
10 people per seat per day

240 gal. per day

2 bedroom apartment
240 gal. per day

4 sleeping rooms
160 gal. per day

Service Station
25 people per day
250 gal. per day referred to Cafe

Service Station
2 bedroom apartment 240 gal. per day

Motel Unit 540 gal. per day

Total Sewage 4430 gal. per day

COMMENT: Chief Sanitarian
Missoula County

In all probability there will be pollutants entering either the Clark Fork or Rock Creek which are attributable to the raised drainage system. The magnitude of this sewage will be small. Further, the County Sanitarian is relectant to issue permits for any further raised field drainage systems in the area of Rock Creek Lodge. Any new sources of sewage require a new permit. That is, the present sewage system is limited to serve the facilities at Rock Creek Lodge as of the Summer of 1977. The menageries therefore constitute a new source of sewage.

